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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,739	10/23/2006	Chalam Mahadevan	0056848-000001	6002

21839 7590 06/23/2009
BUCHANAN, INGERSOLL & ROONEY PC
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

DANG, PHONG SON H

ART UNIT	PAPER NUMBER
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3773

NOTIFICATION DATE	DELIVERY MODE
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06/23/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/586,739	Applicant(s) MAHADEVAN, CHALAM	
	Examiner SON DANG	Art Unit 3773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/21/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed 02/25/2009 has been entered. Claims 19-20 have been added. Therefore, claims 1 and 3-20 are currently pending in the application. The previous 35 USC 112 rejections of claims 12 and 16 are withdrawn in light of the applicant amendments to claims 12 and 16.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 recites the limitation "the side of the shaft" in line 6. There is insufficient antecedent basis for this limitation in the claim.

4. Claim 1 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites "the side of the shaft" which is unclear where that side is.

5. Claim 1 recites the limitation "the point of curvature" in line 7. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 1 recites the limitation "the inner or outer" in line 9. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 4 recites "the lengthwise" which is not supported by the specification.

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8. Claim 4 recites the limitation "the lengthwise center" in line 2. There is insufficient antecedent basis for this limitation in the claim.
9. Claim 5 recites the limitation "the diameter of the needle" in lines 3 and 4. There is insufficient antecedent basis for this limitation in the claim.
10. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 recites "the diameter of the needle" which is not support by the specification or the drawings.
11. Claim 10 recites the limitation "the diameter" in line 3. There is insufficient antecedent basis for this limitation in the claim.
12. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 14 recites "the opening between the groove and the tapered ends". It is unclear what and where that opening is.
13. Claim 18 recites the limitation "begins at the distance" in line 2. There is insufficient antecedent basis for this limitation in the claim.
14. Claim 18 recites the limitation "the solid portion" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 1, 3-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 19706086 to Vantankhah-Barazandeh (Vantankhah-Barazandeh) in view of US Patent No. 2,199,025 to C. E. Conn (Conn).

In Regards to claims 1, 3-16 and 18-20:

Vantankhah-Barazandeh teaches:

A suture needle assembly, comprising a suture needle (1, Fig. 1) and suture (5, Fig. 4) said suture needle comprising: (1) a curvilinear (Fig. 1), substantially arched shaft comprising tapered ends forming two tips for impalement of tissue (Fig. 1); (2) an inner surface and an outer surface (Fig. 7), wherein the side of the shaft wherein the point or points of curvature lie is called the inner side and the other side of the shaft is the outer side; (3) a groove (4, Fig. 9) on either the inner or outer surface of the needle approximately equally remotely located from the said tips along the length of the needle shaft for substantially housing the suture, wherein the groove forms a cavity (Fig. 7) having a bottom and an opening between the groove and each tapered end of the shaft; and (4) a hole (3, Fig. 7) from the bottom of the cavity formed by the groove and extending through the shaft to the opposite surface of the shaft for securing the suture; The said groove is on the outer (4, Fig. 9) surface of the needle (1, Fig. 7). The hole (3, Fig. 7) is located substantially at the lengthwise center of said groove (4, Fig. 9). Suture (5, Fig. 5) comprises a broad section (Fig. 6) having a

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diameter approximately to the diameter of the needle and a narrower section (Fig. 6) having a diameter less than the diameter of the needle. Said narrow section is integrally formed with the suture (5, Fig. 6). The fastening means (eye let fastener 3, Fig. 5) is provided on one end of said narrow section of the suture. The cavity formed by the groove (4, Fig. 9) is dimensioned so as to only house the suture (5, Fig. 5) having a diameter approximate the diameter of the needle (1, Fig. 7), or the narrower section. The end of the narrow section of the suture (5, Fig. 5) is housed in the groove (4, Fig. 9), the length of said narrow section being at least one half of the length of the groove (4, Fig. 2). Two coaxially aligned hollow cylindrical cavities, wherein the diameter of one of said cylindrical cavities is larger than the diameter of the smaller diameter cylindrical cavity (Fig. 7). The smaller diameter cylindrical cavity terminates at the bottom of the groove (4, Fig. 7), said smaller diameter being equal to or greater than the diameter of the suture to enable threading (the suture is being thread through the hole). The opening between the groove and the tapered ends of the shaft is such that the sum of the diameter of the suture running along the body of the needle in the groove and the diameter of the tapered end at the point of emergence of the suture out of the groove is less than or equal to the diameter of the shaft at its widest (Fig. 5, the width of the suture has to be small so that it can run along the groove in the shaft of the needle) (Claim is rejected as best understood). The width of the groove (4, Fig.2) is less than, approximately one-third, the diameter of the shaft of the suture needle (1, Fig. 2) at its widest.

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Excluding the tapering ends of the needle shaft, said shaft (1, Fig. 6) is cylindrical, having a uniform diameter. The groove cavity (4, 9) is begins at the distance from the tip of the suture needle (1, Fig. 7) at which the diameter of the tapering end is equal to the diameter of the narrow section of the suture (Figs. 5-9, the claim is rejected as best understood). Said narrow section of the suture is separately provided (Fig. 6), where the narrow section is attached to one end of the broad section of the suture (Fig. 6). The fastening means (the larger end of suture 5, Fig. 5) is provided at one end of said narrow section of the suture (5, Fig. 5).

Vantankhah-Barazandeh fails to teaches:

Means for fastening comprising a crimp or plug.

The crimp or the plug is circular.

Conn teaches:

The means for fastening being a crimp or plug (10, Fig. 1).

The crimp or the plug is circular (10, Fig. 1).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modified the means for fastening of Conn into the assembly of Vantankhah-Barazandeh and retain in the cylindrical cavity of the needle in order to enhance the fastening means of the suture into the needle device so that the suture would not go through the retaining hole in the needle.

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17. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vantankhah-Barazandeh in view of Conn and further in view of US Patent No. 5,569,301 to Granger et al. (Granger).

In Reference to Claim 12:

Vantankhah-Barazandeh teaches:

An assembly according to claim 10 (see rejection of claim 10 above).

Vantankhah-Barazandeh fails to teach:

The crimp or plug resides entirely within the larger diameter cylindrical cavity.

Granger teaches:

The crimp or plug (44, Figs. 16-19) resides entirely within the larger diameter cylindrical cavity.

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the suture fastening mechanism of Granger into Vantankhah-Barazandeh in order to crimp the suture flush within the body of the needle to enhance suturing process.

18. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vantankhah-Barazandeh in view of US Patent No. 5,417,699 to Klein et al. (Klein).

In Reference to claim 17:

Vantankhah-Barazandeh teaches:

An assembly according to claim 1 (see rejection of Claim 1 above).

Vantankhah-Barazandeh fails to teach:

Wherein the suture needle is composed of titanium.

Klein teaches:

Wherein the suture needle (20, Fig. 2) is composed of titanium.

It would have been obvious to one having ordinary skill in the art at the time of the invention to have substituted the needle material of Klein with the needle material of Vantankhanh-Barazandeh to enhance its superelastic condition.

Response to Arguments

19. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to SON DANG whose telephone number is (571)270-5809. The examiner can normally be reached on Monday-Friday 7:30 AM - 5:00 PM EDT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jackie Ho can be reached on 571-272-4696. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SD

/(Jackie) Tan-Uyen T. Ho/
Supervisory Patent Examiner, Art Unit 3773